

REMARKS

Reconsideration and allowance of this application are respectfully requested.

Claims 1, 4-14, 17-22, 25-30 and 33-62 are pending.

Claims 1, 14, 21, 30, 36, 37, 53 and 61 are independent.

Claims 2, 3, 15, 16, 23, 24, 31 and 32 have been cancelled without prejudice or disclaimer.

Claims 1, 14, 21 and 30 have been amended to include the features of their respective cancelled dependent claims. Claim 36 has been amended to include the same features. Hence, no new matter has been added by the amendments herein.

In the final Office Action dated August 7, 1997, Claims 1-35 were rejected under 35 U.S.C. § 103(a) as allegedly obvious over Matsumoto, et al. (U.S.P. No. 4,860,026) in view of Suzuki (U.S.P. No. 4,551,736) and Sugimoto, et al. (U.S.P. No. 5,477,248). Claims 36-62 were rejected under 35 U.S.C. § 103 as allegedly obvious over Matsumoto, et al. in view of Suzuki. Applicants respectfully disagree with these rejections.

Before discussing the merits of these rejections, Applicants believe it will be helpful to review some features of the invention as presently claimed. Claims 1-36 recite that the high dye density inks have different penetrabilities as compared to the low dye density inks. Amended Claims 1, 14, 21, 30 and 36 now also recite that the component ratio of

the surface active agent is made different for high dye density versus low dye density inks. The component ratio of the surface active agent causes the difference in penetrabilities. Applicants submit that the claimed invention is not rendered obvious by the cited references.

Matsumoto, et al. discloses a recording apparatus using inks having different densities (thin, mid, thick) of the same color category.

Suzuki discloses defining the viscosities of the high dye concentration ink and the low dye concentration ink so as to prevent the diameters of dots formed by the two different inks from being uneven. In particular, Suzuki discloses the technique of positively making the viscosity of the high dye concentration ink close to that of the low dye concentration ink.

Applicants submit that Suzuki discloses that the respective amounts of the dye component are different for the "thick" and the "thin" inks, and this causes the different penetrabilities. In contrast, in the present invention the relative amounts of the surface active components for the "thick" and the "thin" inks are made different in order to positively differentiate their penetrabilities.

Sugimoto, et al. relates to penetrability of ink. In Sugimoto, et al., the penetrability of the ink is made different corresponding to the color, so that the influence

of blur can be prevented from appearing in the color having the most lightness (e.g., yellow).

Applicants submit that the cited references do not teach or suggest the feature that the penetrabilities of the "thick" and the "thin" inks are positively adjusted to be different by the amount of surface active agent contained in the inks. Applicants further submit that the combination of Sugimoto, et al., Suzuki and Matsumoto, et al. would result in a situation where the penetrability of the "thin" ink is increased to enlarge the diameter of its dots in order to reduce the grainy look of the "thin" ink.

Applicants therefore conclude that the invention of Claims 1-35 is not taught or suggested by Matsumoto, et al., Suzuki or Sugimoto, et al., either singly or in combination.

Claims 36-62 were rejected as allegedly obvious over Matsumoto, et al. in view of Suzuki. The Examiner asserts that the recorded article of Claim 36 would be suggested by the recorded sheet of Matsumoto, et al. Claim 36 has been amended in the same way as the claims discussed above. Since it now contains the feature that the penetrability is adjusted by the amount of surface active agent contained in the "thin" versus the "thick" inks, Applicants submit that it is not taught or suggested by Matsumoto, et al. in view of Suzuki.

The Examiner has not explained how the cited references apply to Claims 37-62, particularly independent Claims 37, 53 and 61. Applicants submit that these claims are not taught or suggested by Matsumoto, et al. in view of Suzuki, either.

Claims 37, 53 and 61 all recite that plural inks having different dye densities are divided and held in the same ink container. Matsumoto, et al. describes different concentrations of different colors of inks being in different heads. See Fig. 9 and col. 6, lines 27-35. Suzuki does not disclose any specifics of how the inks are contained. Although it has not been applied to Claims 36-62, Applicants note that Sugimoto, et al. discloses containing different color inks in different cartridges. See col. 3, lines 23-26 and col. 4, lines 8-10.

Applicants therefore conclude that Claims 37-62 are not taught or suggested by the cited references.

In view of the foregoing, reconsideration and withdrawal of all outstanding rejections are requested.

Applicants submit that the present invention is in condition for allowance. Favorable reconsideration, and an early Notice of Allowance are requested.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

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